

Zoologist

Performance Task

Introduction

Human population growth continues on the planet Earth. The planet has limited resources and the areas of the Earth that humans choose to populate are having natural resources continually used. As these resources are used up, humans continue to move further and further from their community borders to find new resources. As this happens, animals are losing habitat to humans. Additionally, humans are killing animals for a variety of reasons, many of which do not involve providing food.

Your task is to choose one endangered species and create a marketing campaign based upon the interaction between humans and this animal. Public service announcements have the ability to positively impact these situations.

This task connects habitat and ecosystems, human wants and needs, and the influence of human on animals and habitat.

Big Idea / Essential Questions

Big Idea

- Living things depend on their habitat to meet their basic needs.
- The survival of living things is dependent upon their adaptations and ability to respond to natural changes in and human influences on the environment.
- Human actions modify the physical environment, and physical systems affect human systems.

Essential Questions

- When investigating different systems (e.g., agriculture, terrestrial, aquatic), how does a habitat meet the needs of a species?
- How is the survival of species and their ability to adapt affected by natural and human-induced environmental changes?
- Why are public policies and programs for resource use and management dependent on environmental and social pressures?

G.R.A.S.P.

Goal

You have been hired by an international conservation group to provide scientific and ecological expertise to a marketing campaign targeting the citizens of the United States. This campaign is meant to highlight the impact humans have on endangered species.

Role

As a zoologist, you have an understanding of animals and their habitat. This knowledge will be critical as you design a marketing campaign based upon the influence humans have on animals and where they live. It will also be important to consider ways in which humans can minimize these impacts.

Audience

Your audience will be the leaders of this international conservation group, and they will be interested to evaluate how you educate and persuade the public regarding the connections between humans and endangered animals. They will also want to review the ways in which you consider minimizing these impacts.

Situation

Human population growth continues on the planet Earth. The planet has limited resources and the areas of the Earth that humans choose to populate are having natural resources continually used. As these resources are used up, humans continue to move further and further from their community borders to find new resources. As this happens, animals are losing habitat to humans. Additionally, humans are killing animals for a variety of reasons, many which do not involve providing food.

Your task is to choose one endangered species and create a marketing campaign based upon the interaction between humans and this animal. Public Service Announcements have the ability to positively impact situations.

The following may help you develop your plan to market information related to the endangered animal you have selected.

- [World Wildlife Fund](#)

Products

1. Flyer

Create a one-page flyer describing the situation that the endangered animal currently faces. The flyer should include numerous facts to help educate the public. It will be distributed at zoos and aquariums across the country and should be visually engaging.

It will be important for people to understand how matter and energy flow cycles through the living and non-living parts of the ecosystems and what happens when humans impact the ecosystem. Please use images, charts and graphs as necessary to help create a model of this and inform the public.

- Where does this animal live?
- Why is the animal endangered?
- How have humans influenced this animal's situation?

Flyer - Zoologist

Achievement
Levels

1

2

3

4

Achievement Levels	Achievement Levels			
	1	2	3	4
Protecting Ecosystems (x1)	Student shows minimal understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows some understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows an adequate understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student has a strong understanding that human action is needed to protect ecosystems and the species that live in that environment.
Research (x1)	The flyer provides few accurate facts and details providing the audience with limited information related to the topic and purpose.	The flyer provides some accurate facts and details providing the audience with pieces of information related to the topic and purpose.	The flyer provides many accurate facts and details providing the audience with important, accurate information related to the topic and purpose.	The flyer provides a large number of accurate facts and explicit details providing the audience with critical, accurate information related to the topic and purpose.
Habitat and Energy Flow (x1)	The product provides minimal evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.	The product provides some evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.	The product provides adequate evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.	The product provides strong evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.
Graphics and Visuals (x1)	The graphics and visuals provide little evidence to support the claims made through the presentation and make the information provided easy for the viewer to understand.	The graphics and visuals provide some evidence to support the claims made through the presentation and make the information provided easy for the viewer to understand.	The graphics and visuals provide satisfactory evidence to support the claims made through the presentation and make the information provided easy for the viewer to understand.	The graphics and visuals provide thorough evidence to support the claims made through the presentation and make the information provided easy for the viewer to understand.

2. Photostory

Create a visual product/presentation that shows the animal in its habitat and how the habitat has been influenced by human interaction. Describe and provide examples of the various aspects of the habitat that are critical to the animal's survival. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources have impacted the habitat and animal.

Be sure to include pictures, diagrams, and captions to demonstrate how the animal's habitat has changed over the years due to human influences.

- How have humans impacted these animals' habitats?
- What do animals need in order to survive?
- How does the habitat impact the survival of animals?

Photostory - Zoologist

Achievement Levels	1	2	3	4
Habitat and Energy Flow (x1)	The product provides minimal evidence related to the flow of energy through the ecosystem.	The product provides some evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.	The product provides satisfactory evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.	The product provides strong evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.

Achievement Levels	1	2	3	4
Aesthetics (x1)	The layout is inappropriate with awkward transitions. Font formats do not promote readability.	The layout is appropriate and aesthetically pleasing with awkward transitions. Font formats do not promote readability.	The layout is appropriate and pleasing with transitions moving the audience from slide to slide. Font formats allow the reader to adequately read the presentation.	The layout is appropriate and aesthetically pleasing with transitions that are smooth and strategic. Font formats have been carefully planned to enhance readability.
Technology (x1)	The technology applications utilized do not connect the presentation and topic. The graphics are unattractive and do not connect with the topic of the presentation.	The technology applications utilized connect the presentation and topic. Some graphics are attractive and connect with the topic of the presentation.	The technology applications utilized enhance the presentation and topic. Most graphics are attractive and support the topic of the presentation.	The technology applications utilized strongly enhance the presentation and topic. All graphics are attractive and support the topic of the presentation.
Protecting Ecosystems (x1)	Student shows minimal understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows some understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows an adequate understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student has a strong understanding that human action is needed to protect ecosystems and the species that live in that environment.
Argument Related to Human Population (x1)	Product constructs a minimal argument for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	Product constructs a partial argument somewhat supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	Product constructs an effective argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	Product constructs a very effective argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.
Economic Decisions and Products for Humans (x1)	The product minimally explains how economic decisions based upon materials and products impact the well being of societies, habitat, and business.	The product somewhat explains how economic decisions based upon materials and products impact the well being of societies, habitat, and business.	The product sufficiently explains how economic decisions based upon materials and products impact the well being of societies, habitat, and business.	The product thoroughly explains how economic decisions based upon materials and products impact the well being of societies, habitat, and business.

3. Podcast

Create a one to one-and-a-half minute podcast that addresses the situation with the endangered animal you have selected. Construct an argument supported by empirical evidence that changes to the physical or biological components of this animal's ecosystem has affected the population.

This audio should engage the listener and help the listener understand the animal's situation. You will want to persuade the listener related to what can be done to minimize human influence that may be impacting the survival of the animal.

- How can you persuade people to help save an endangered animal?
- Why has the animal become endangered?
- What types of things will people want to learn and know related to the animal's situation?

Podcast - Zoologist

Achievement Levels	1	2	3	4
	The communication exhibited somewhat limits audience	The communication exhibited somewhat limits	Rehearsed, effective communication is exhibited and an	Well rehearsed, highly effective communication with uses an easy

Review Achievement Levels	1 engagement and makes it difficult to fully comprehend the topic.	2 audience engagement and makes it difficult to fully comprehend the topic.	3 easy to understand conversational style is utilized to engage the audience.	4 to understand conversational style which engages the audience.
Creativity (x1)	The podcast demonstrates little creativity with few ideas developed, implemented and communicated to the audience.	The podcast demonstrates a fair amount of creativity with some ideas developed, implemented and communicated to the audience.	The podcast demonstrates creativity with ideas that are developed, implemented and communicated to the audience.	The podcast demonstrates creative and innovative ideas that are strongly developed, implemented and communicated to the audience.
Arguments Related to Ecosystem Changes (x1)	Product constructs a minimal argument that changes to the physical or biological components of the ecosystem affect the animal's population.	Product constructs a partial argument supported by empirical evidence that changes to the physical or biological components of the ecosystem affect the animal's population.	Product constructs a sufficient argument supported by empirical evidence that changes to the physical or biological components of the ecosystem affect the animal's population with claims based upon research..	Product constructs a strong argument supported by empirical evidence that changes to the physical or biological components of the ecosystem affect the animal's population with claims based upon research.
Protecting Ecosystems (x1)	Student shows minimal understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows some understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows an adequate understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student has a strong understanding that human action is needed to protect ecosystems and the species that live in that environment.
Habitats and Energy Flow (x1)	The product provides minimal evidence related to examples of how energy flows through the ecosystem.	The product provides some evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem.	The product provides satisfactory evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.	The product provides strong evidence related to examples of producers, consumers and decomposers and how energy flows through the ecosystem creating mutually beneficial interactions.

4. Electronic Billboard

Create an electronic billboard that may change images up to three times per minute. This means that you can create three images that will rotate each minute. You must create an eye-catching image(s) and create a very brief narrative that can be read while someone is driving by the billboard. The imagery and message must catch the attention of the viewer and should provide an emotional connection. Be sure that your message explains the endangered animal's situation through images based upon facts you discovered in your research.

- What images and information can quickly attract people's attention?
- How can you get people interested in helping to save the animal and its habitat?

Electronic Billboard - Zoologist

Achievement Levels	1	2	3	4
Required Elements and Design Accuracy (x1)	Poster lacking required elements, a title, information appropriate for purpose and audience.	Poster contains some required elements, a title, inclusion of little information, appropriate for purpose and audience.	Poster contains most required elements, a title, inclusion of relevant information, appropriate for purpose and audience.	Poster contains all required elements, a clear title, relevant and accurate information, appropriate for purpose and audience.
Aesthetics (x1)	There is a no cohesive organization to the poster with no attempts	There is a little cohesive organization to the poster with few attempts at balance between the design elements. The poster	There is a somewhat cohesive organization to the poster with attempts at balance between the design elements. The poster	There is a cohesive organization to the poster with balance between the design elements. The poster

Achievement Levels	1 at balance between the design elements.	2 reflects somewhat effective use of space, color, texture, and shape.	3 reflects effective use of space, color, texture, and shape.	4 reflects very effective use of space, color, texture, and shape.
Protecting Ecosystems (x1)	Student shows minimal understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows some understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows an adequate understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student has a strong understanding that human action is needed to protect ecosystems and the species that live in that environment.
Visual Model of Habitat and Species Needs (x1)	The product provides minimal visual evidence to support the habitat meant to support a species through food, shelter and space.	The product provides some visual evidence to support the habitat meant to support a species through food, shelter and space.	The product provides adequate visual evidence to support the habitat meant to support a species through food, shelter and space.	The product provides strong visual evidence to support the habitat meant to support a species through food, shelter and space.

5. Editorial

Write an editorial based upon your research that should be between 250 and 300 words. This editorial should describe the connection between the American people and the situation that exists for the endangered animal. Please be sure to share what is happening and how people can help save this animal. The editorial should be written using informative and persuasive methods for writing.

- Where is the animal located and why is it endangered?
- How are the American people connected with this endangered species and what can they do to help it not be endangered anymore?
- How can people around the world help minimize human influences on the animal and it's habitat?

Editorial - Zoologist

Achievement Levels	1	2	3	4
Article Structure (x1)	A headline is present and the article is a narrative that fairly describes the central idea.	A headline is present that captures the article's focus. The article is a narrative that describes the central idea.	A headline is present that captures the article's focus and is somewhat interesting for the audience. The article has an introduction, body and conclusion all generally focused around a central idea.	A headline is present that captures the article's focus as well as the audience's attention. The article has a strong introduction, body and conclusion all focused around a central idea.
Writing Conventions (x1)	The final product contains many errors of spelling, grammar or syntax. The article is poorly written.	The final product contains some errors of spelling, grammar or syntax. The article is written using a singular voice.	The final product contains minimal errors of spelling, grammar or syntax. The article is written using a singular voice.	The final product contains no errors of spelling, grammar or syntax. The article is written using a singular voice.
Economic Decisions and Products for Humans (x1)	The product minimally explains how economic decisions based upon materials and products impact the well-being of societies, habitat and business.	The product somewhat explains how economic decisions based upon materials and products impact the well-being of societies, habitat and business.	The product sufficiently explains how economic decisions based upon materials and products impact the well-being of societies, habitat and business.	The product thoroughly explains how economic decisions based upon materials and products impact the well-being of societies, habitat and business.
Arguments from Evidence/Research (x1)	Product demonstrates minimal support for claims.	Product demonstrates somewhat effective support for claims with reasons and evidence based upon some	Product demonstrates effective support for claims with clear reasons and relevant evidence based upon sufficient research.	Product demonstrates very effective support for claims with clear reasons and relevant evidence based upon thorough research.

Achievement Levels	1	2	3	4
Protecting Ecosystems (x1)	Student shows minimal understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows some understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student shows an adequate understanding that human action is needed to protect ecosystems and the species that live in that environment.	Student has a strong understanding that human action is needed to protect ecosystems and the species that live in that environment.